

Application No. 09/979,499

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As indicated in the Summary of the Invention, the present invention provides a wireless security alarm system with *two-way communication* between a control unit and a plurality of peripheral devices, including both sensors and alarm indicators.

In the system of the invention the peripherals can be configured through the control unit upon installation, either directly or from a remote location, and automatically or remotely reconfigured. In the preferred embodiment this is accomplished by providing the control unit with a built-in digital communicator having full upload and download capabilities, permitting remote programming, alarm reception and verification and analysis of an alarm condition utilizing a *bi-directional digital communication data link*.

Wilson et al. teach a data acquisition system through which acquired data can be directly entered into computer application programs which can then transmit control outputs in response. However, as clearly shown in Figure 2, the peripherals which sense the conditions being measured (e.g. smoke detectors 66 to 68 and temperature sensor 70) can only send signals to the I/O bridge device 14, they cannot receive signals from the I/O bridge device 14. Likewise, the peripherals which react to the output control signals (e.g. disable switch 69, security alarm 72, modem 20) can only receive signals from the I/O bridge device 14, they cannot send signals to the I/O bridge device 14.

The applicant has accordingly amended the main claims to recite the two way communication feature of the present invention. As now recited in main claim 1, the peripheral units comprise an RF transceiver for communicating with the main control unit and the main control unit both receives a signal from the one or more peripheral units to indicate an alarm condition, and communicates data to one or more of those peripheral devices to configure and control the peripheral devices. Similarly, claim 11 to the method now recites the step of communicating data from the main control unit to the one or more peripheral devices to configure and control said peripheral devices, which are the same peripherals from which the main control unit receives data to indicate an alarm condition.

This is not taught or suggested by Wilson et al., who use *one-way* communication from sensing peripherals to the I/O bridge 14 to acquire information, and *one-way* communication from the I/O bridge 14 to *different* actuator peripherals in response. The two way communication feature

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of the present invention gives rise to a number of advantages, for example allowing any of the peripherals to be reconfigured if the control unit detects attempts to tamper with peripherals or jam the signals to the control unit; to initiate or discontinue a battery-saving "sleep" mode; or to adjust environmental controls or preprogrammed procedures; all of which are mentioned in the disclosure. Also, this allows for the features recited in claims 5, wherein in response to an indication of an alarm condition by a sensor, the main control unit requests a status signal from the sensor to verify the alarm condition; and claim 6, wherein in response to an indication of an alarm condition by a sensor, the main control unit processes a status signal from one or more neighboring sensors to verify the alarm condition. Both of these claimed features arise specifically from the unique two-way communication feature of the invention (and both of these features are themselves unique and patentable).

In the preferred embodiment the control unit incorporates an interface for a digital processing device such as a personal computer, which allows the control unit to be programmed to perform a variety of functions and comprehensive diagnostic capabilities for testing, maintenance and repair of the system, and connection to computer networks, including the Internet. This feature, which was initially recited in main claims 1 and 11, is now found in dependent claims 21 and 22.

Favourable reconsideration and allowance of this application are respectfully requested.

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Encl. Marked up version of amended claims